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PATENT ABSTRACTS OF JAPAN(21) Application number: **2000371334**(51) Intl. Cl.: **G11B 5/31**(22) Application date: **06.12.00**

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**(54) THIN FILM MAGNETIC
HEAD AND
MANUFACTURING
METHOD THEREOF, AND
MAGNETIC DISK UNIT**

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a composite magnetic head with satisfied reproducibility having the fine recording track width without being restricted in the resolving dimension of photo-lithographic technology.

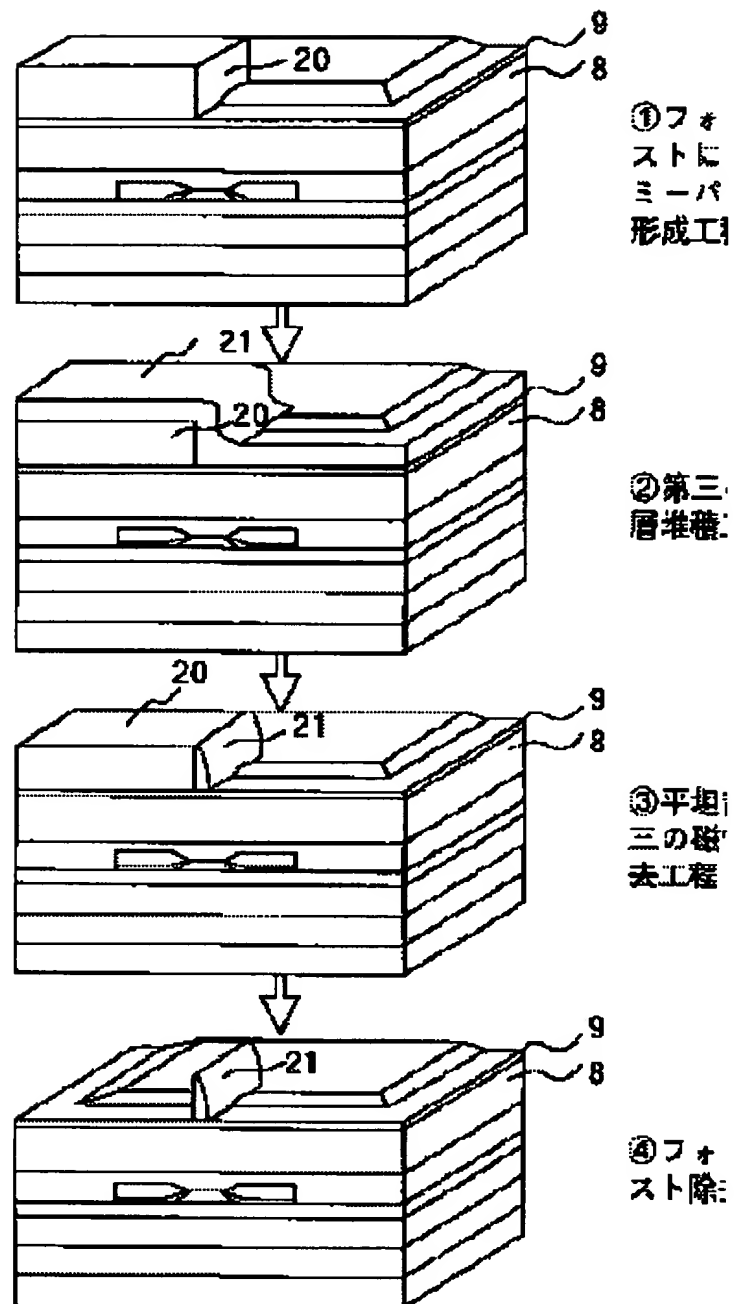
SOLUTION: In the process to form a pole part of a recording head, a dummy pattern is formed by using the material such as photoresist so that the end of the pattern is positioned at the position for forming the pole part, and a soft magnetic material becoming the pole is formed to the film on the side surface of this dummy pattern by using a method such as a gradient sputtering. After that, the soft magnetic material only

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of the flat part is removed by an etching method having the anisotropy such as an ion milling so as to leave the soft magnetic material on the side surface of the dummy pattern. Consecutively, the pole part of a writing head is formed by removing the dummy pattern. By the above method, the writing track is determined by the film thickness of a magnetic film forming the pole part of the recording head, independently of the resolving minimum dimension of the photo-lithography of a long wavelength light source.

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